

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions,  
and listings of claims in the application:

LISTING OF CLAIMS:

1-27. (cancelled)

28. (withdrawn) A method for the treatment of infectious diseases, comprising administering to a subject in need thereof an effective amount of a live culture of a non pathogenic food grade probiotic bacterium.

29. (withdrawn) The method as claimed in claim 28 wherein the infectious disease is a localized infection of the skin.

30. (withdrawn) The method as claimed in claim 28, wherein the probiotic bacterium is a non-pathogenic lactic acid bacterium.

31. (withdrawn) The method as claimed in claim 30 wherein the lactic acid bacterium is a *Lactococcus* strain.

32. (withdrawn) The method as claimed in claim 31 wherein the *Lactococcus* strain is selected from the group consisting of; *Lactococcus lactis* DPC3147, and *Lactococcus lactis* 5399, *Lb. plantarum* DPC4922.

33. (withdrawn) The method as claimed in claim 28 wherein the disease is a mastitis infection.

34. (withdrawn) A method for the treatment of infectious diseases, comprising administering to a subject in need thereof an effective amount a freeze-dried preparation of a live culture of a non-pathogenic food-grade probiotic bacterium.

35. (withdrawn) A method for the treatment of infectious disease comprising administering to a subject in need thereof an effective amount of a supernatant from a live culture of a non-pathogenic food-grade probiotic bacterium.

36. (withdrawn) The method as claimed in claim 35 wherein the infectious disease is a localized infection of the skin.

37. (withdrawn) The method as claimed in claim 35 wherein the probiotic bacterium is a non pathogenic lactic acid bacterium.

38. (withdrawn) The method as claimed in claim 37 wherein the lactic acid bacterium is a *Lactococcus* strain.

39. (withdrawn) The method as claimed in claim 38 wherein the *Lactococcus* strain is selected from the group consisting of; *Lactococcus lactis* DPC3147 and *Lactococcus lactis* 5399, *Lb. plantarum* DPC4922.

40. (withdrawn) The method as claimed in claim 30 wherein the disease is a mastitis infection.

41. (withdrawn) A method for the treatment of infectious diseases, comprising administering to a subject in need thereof an effective amount of a live culture of a non-pathogenic food-grade probiotic bacterium or the supernatant of a

live culture of a non-pathogenic food-grade probiotic bacterium.

42. (withdrawn) The method as claimed in claim 41 wherein the infectious disease is mastitis.

43. (withdrawn) A live culture of a non-pathogenic food-grade probiotic bacterium or the supernatant of a live culture of a non-pathogenic food-grade probiotic bacterium in a method of stimulation of the immune system.

44. (withdrawn) The method as claimed in claim 43 where the live culture or supernatant is used to stimulate PMN cells.

45. (currently amended) A pharmaceutical composition adapted for application to localised infection of the skin, comprising a pharmaceutically effective amount of a non-pathogenic live culture of a food-grade probiotic bacterium or a pharmaceutically effective amount of the supernatant of a live culture of a non-pathogenic food-grade probiotic bacterium together with a pharmaceutically acceptable carrier or diluent, wherein the bacterium is a *Lactococcus* strain.

46. (currently amended) A method of treating a subject having or at risk of developing infectious diseases comprising administering to a localised infection of the skin of a subject a pharmaceutically effective amount of a non-pathogenic live culture of a food-grade probiotic bacterium or the supernatant of a non pathogenic live culture of a food-grade probiotic bacterium, wherein the bacterium is a *Lactococcus* strain.

47. (cancelled)

48. (previously presented) The method of treatment as claimed in claim 46 wherein the infectious disease is localised to an infected wound.

49. (previously presented) The method of treatment as claimed in claim 46 wherein the infectious disease is localised to the urinary tract.

50. (previously presented) The method of treatment as claimed in claim 46 wherein the infectious disease is mastitis.

51. (cancelled)

52. (new) The pharmaceutical composition according to claim 45, wherein the pharmaceutical composition is an infusion mixture.

53. (new) The pharmaceutical composition according to Claim 45 wherein the *Lactococcus* strain a *Lactococcus lactis* strain.

54. (new) The method according to Claim 46 wherein the *Lactococcus* strain is a *Lactococcus lactis* strain.